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ABSTRACT

East Germany: Transition With Unification Experiments and Experiences*

East Germany remains unique among the transition economies. Soon after the fall of the Berlin Wall in 1989, it became part of the Federal Republic of Germany. German Union meant the transplantation of West Germany's legal, administrative and economic infrastructure to the five new *Länder*. The Paper traces the economic changes since 1989 and assesses the convergence between West and East Germany during the last decade. We reach three main conclusions: First, there has been significant convergence in the administrative and economic realm, though persistent differences remain in the level of output and incomes as well as local capacities. Second, the Kohl government's policy towards East German transition, driven by short-term electoral considerations, has focused almost entirely on financing a high standard of consumption and too little on fostering investment and economic restructuring. Third, there is, therefore, a considerable risk that East Germany will remain a transfer-dependent economy for the foreseeable future. However, endogenous institutional change in the labour market, showing its first signs in East Germany, may become important in overcoming the structural problems in the new *Länder*.

JEL Classification: P20, P23, P26, P27
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NON-TECHNICAL SUMMARY

East Germany benefited in its rapid transition from the transplantation of West German institutions. Human capital and financial resource transfers to the new *Länder*, in addition, reached levels far above the support flowing into other transition economies. Yet, these advantageous conditions do not imply that the economic transition would have been immediate and economic conditions completely converged to West German standards. To a certain extent, the transmission of Western social and political institutions even presented a liability rather than an opportunity for the economic restructuring of East Germany.

The first part of the Paper traces the economic convergence from 1989 onwards and detects causes of the remaining structural deficiencies. Due to these deficiencies, there is a significant risk that former East Germany remains a transfer-dependent economy, although endogenous institutional changes in the labour market may provide a basis for improvements. The second part of the Paper spells out the fiscal implications of unification. After outlining the structure of fiscal transfers, which clearly does not square with a tax-smoothing argument, we turn to the more specific aspect of local public finances because the peculiarities of institution-building and fiscal integration can be illustrated particularly well in this area.

Production in East Germany slumped in the immediate aftermath of the transition, regained force until the mid-90s, to then slow down in line with the West German business cycle. This development was accompanied by a relatively high level of private consumption converging to Western standards. The deterioration of production and income, on the one hand, and the continuous increase of consumption expenditures, on the other hand, is part of the most stunning aspect of East Germany's transition: the ability to consume and invest far above the level of domestically produced outputs and income. Over the years, the external deficit of the New *Länder* reached from three-quarters of GDP in 1991 to one third its GDP in 1997. Public sector transfers from West Germany covered almost the total deficit.

The actual domestic investment, i.e. private investment not financed through subsidies or from abroad, did not exceed the West German level. This is surprising given the scarcity of modern capital, which should be associated with a high real rate of return on capital. The reason is the discrepancy between wage costs and productivity in East Germany rendering investment of East Germans in immature Eastern firms unprofitable. As a consequence, the economic restructuring is marked by a significant de-industrialization of the Eastern economies. Now the fastest growing industries are those with intensive transportation costs, producing primarily for the regional markets.

After the limited reconstruction of the rotten capital stock in manufacturing, investment shifted to housing, due to tax incentives of the federal government for residential housing and then to services. Currently, the East German economy takes a lead over its West German counterpart in its service orientation. Yet, the limited long-run growth potential of the industrial sector leaves the risk that the new *Länder* will remain transfer dependent for the foreseeable future.

The basis of high wage costs and the astonishing high levels of consumption was the transfer of the West German labour market and social security institutions to the East. The conversion rate of 1:1 for wages and the immediate transfer of West German unemployment insurance allowed unions to strive for large wage hikes and strongly increased the fiscal costs of unification. In addition, the German Federal Government implemented an unprecedented high level of active labour market measures creating a so-called 'second labour market', with rather limited success in actually reducing total unemployment. As a consequence of the high wage strategy, entrepreneurs left the system of collective wage-bargaining and union density eroded substantially far below Western levels. This endogenous reaction to factor market distortions introduces more flexibility into the economy which may prove to be important for future developments.

Annual fiscal transfers from West Germany to the new *Länder*, being the backbone of the transition strategy, reached about 5% of total GDP during the years after unification. The bulk of these resources came from the Federal government and was spent as transfer payments to individuals. This is a clear refutation of a tax-smoothing interpretation of German fiscal policy, which is marked by a considerable increase of public debt at the national level and the sub-national level in the new *Länder*. Although public indebtedness at the sub-national level was negligible at the time of unification, it reached about one third of GDP in 1998 and *per capita* municipal liabilities even exceed Western levels.

A detailed analysis of local public finances reveals that this dramatic deterioration of public finances is largely the result of insufficient administrative capacity during the initial years and exogenous constraints. On the revenue side, tax capacity still lags far behind Western standards, and transfer dependency is much higher. On the expenditure side, an excessive stock of public sector employees, inherited from the former East German enterprises and the need for public investment produced expenditure levels deviating from Western pattern. Over the years wage compensation has levelled out to a share of total expenditures comparable to Western municipalities.

I. Introduction

East Germany remains unique among the transition economies. Soon after the fall of the Berlin Wall in 1989, it became part of the Federal Republic of Germany. German union meant the transplantation of West Germany's legal, administrative and economic infrastructure to the five new federal states. Perhaps the most visible aspects of this from the outside were East Germany's adoption of the DM and the integration of East Germany into the fiscal framework of the Federal Republic, and the immediate and full participation of East Germany into the trading system of the European Union.

At the time, the rapid integration of East Germany into the Federal Republic was met with high hopes, but also with warning criticism. Optimistic views, including those of the West German government under Chancellor Kohl, held that East Germany would be rapidly reconstructed and transformed into a thriving, modern economy, and that East Germany would quickly converge to West Germany in terms of economic performance. In fact, the federal government's economic policy towards the new states rested on the assumption that the transition phase would be successfully completed in a matter of a few years. In contrast, those who were more skeptical warned that East Germany risked becoming Germany's „mezzogiorno", a region permanently lagging behind in economic development and dependent on transfers from the West.

Ten years after the fall of the Berlin Wall, we can ask how successful East Germany's transition has been and to what extent convergence has occurred. This paper gives an account of East Germany's economic development since 1990. In section II, we review East Germany's macroeconomic transition. In section III, we consider the progress with economic restructuring. Section IV is devoted to the adjustments in the labor market and section V to public finance aspects of East Germany's transition. Section VI derives our main conclusions: First, there has been significant convergence in the administrative and economic realm though persistent differences remain in the level of output and incomes as well as local capacities. Second, the risk that East Germany will become a transfer-dependent economy for the foreseeable future is considerable. Endogenous institutional change in the labor market showing its first signs in East Germany may become important in overcoming these problems.

I. Macroeconomic Performance

Table 1 summarizes East Germany's macroeconomic performance since 1991.[1] Between 1991 and 1997, total population fell by almost three percent, although net migration between

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[1] See von Hagen (1997) for a description of the initial conditions of East Germany's transition. We begin our analysis with that year since it is the first one for which complete data are available for the East German economy.

East and West Germany was low after 1990. Real GDP started to decline already prior to German union in 1990. After German union, the decline precipitated. The total drop in real GDP between 1989 and 1991 amounted to 35 percent. From 1992 on, real GDP increased by a total of 41 percent. In 1989, East Germany's real GDP stood at 13 percent of West German GDP; between 1991 and 1997, it rose from 8 percent to 10 percent of West German GDP. Real economic growth was vigorous only in the first half of the 1990s, it fell to levels close to the low West German growth rates after 1995. Thus, East Germany seems to be closely tied to the West German business cycle in the second half of the 1990s.

Table 1: Economic Performance, 1991-98

	Real GDP (in Bill.)		Real GDP Growth rate		Per capita real GDP		Population (in Tsd.)	Consumption per capita		Industrial Production (growth rate)	
	East	West	East	West	East	West		East	West	East	West
1991	206.0	2647.6	-22.9	5.1	12.9	41.3	15910	11527	22582	-33.0	3.7
1992	222.2	2694.3	7.9	1.8	14.1	41.5	15730	12501	22813	.8	-0.1
1993	242.4	2639.1	9.8	-0.2	15.5	40.3	15645	12778	22565	6.0	-7.7
1994	265.6	2694.0	10.4	2.1	17.1	40.9	15564	13255	22644	14.5	2.9
1995	277.3	2718.2	4.7	0.9	18.1	41.1	15505	13755	n.a..	4.8	0.0
1996	286.4	2747.6	3.8	1.1	18.5	41.4	15451	13837	.n.a.	1.1	-0.6
1997	292.2	2809.5	1.9	2.3	18.8	42.2	15405	13548	.n.a.	2.5	2.6
1998	297.5	2919.1	2.0	3.9	19.4*	n.a..	15350*	n.a.	.n.a.	n.a.	n.a..

Source: Council of Economic Advisors, various issues, von Hagen (1997); * estimated

Per capital real GDP started out at 31 percent of West Germany's level in 1991 and rose to 44.5 percent during the 1990s.

In 1991, East German industrial production fell by 33 percent compared to the annualized level of the first half of 1990. Table 1 shows that the recovery did not take off before 1993, and it slowed down again quickly in the German recession of the mid-1990s. Today, industrial production barely exceeds pre-transformation levels.

Table 1 indicates how different the development of per capita consumption in East Germany was during this period. Per capita consumption reached 51 percent of the West German level in 1991, i.e., the gap between the two parts of Germany was much smaller in consumption terms than in production terms. In 1994, East German per capita consumption had advanced to 58 percent of the West German level.[2]

East and West German consumption figures are difficult to compare during this period, because of the remaining distortions of relative prices. For example, housing prices remain much lower in East Germany compared to West Germany. Thus, the differences in standards of living are likely significantly smaller than the consumption data suggest.

[2] Separate data for the uses of GDP in East and West Germany are no longer published in official documents since 1994.

Microeconomic data (DIW et al., 1999) indicate that average household incomes in East Germany had advanced to 80 percent of West German levels in 1995, and that households in East Germany can purchase a representative bundle of goods, for which West German consumers pay DM 100, for DM 91. This suggests that East German real household incomes approximated 90 percent of West German levels in 1995. Household ownership rates are similar for most categories of consumer durables in East and West Germany. This convergence is consistent with the observation that net migration from East to West Germany virtually stopped in the early 1990s.

Table 2: East Germany: Uses of GDP

	Consumption	Private Investment	Government purchases	External Balance	Public Transfers	Foreign investment
1991	89.0	44.5	43.5	-75.0	67.5	15.5
1992	81.7	47.7	42.0	-70.8	56.9	20.0
1993	74.2	47.2	37.6	-59.5	51.7	20.4
1994	68.0	50.4	34.9	-55.5	46.0	21.1
1995	64.9	48.4	33.1	-44.2	46.5	n.a..
1996	65.9	46.2	32.8	-43.7	45.3	.n.a.
1997	62.3	43.5	31.0	-36.8	43.4	n.a..

Note: All entries percentage of East German GDP. Source: Federal Statistical Office

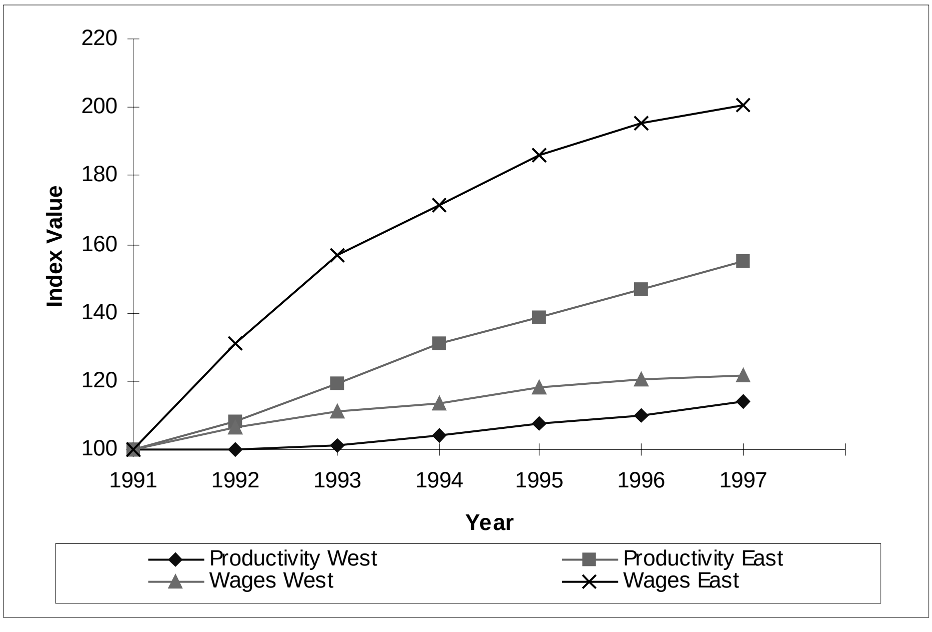
Table 2 reports the uses of GDP in East Germany for the years for which data are available. This table reveals perhaps the most stunning aspect of East Germany's transition process: the ability to consume and invest far above the level of domestically produced output and incomes. The external deficit of East Germany amounted to 75 percent of its GDP in 1991. In 1994, it still stood significantly above 50 percent. By 1997, the external deficit amounted to 37 percent of GDP, but the 1995-97 figures may be biased downwards, as they do not include all investment. The table shows that public sector transfers from West Germany financed between 80 and 100 percent of that deficit.

To put these numbers in perspective, note that West German consumption amounted to 55 percent of West German GDP in 1991, investment amounted to 21.3 percent, and government purchases to 18 percent. The ratio of consumption to GDP thus was higher by two thirds in East Germany compared to West Germany. Private household savings ratios (savings in relation to disposable income), however, were almost the same in the two parts of Germany. Thus, the higher consumption ratio is not an indication of a higher propensity of East German households to consume out of a given income, but rather the result of a higher ratio of disposable incomes to GDP which was facilitated by the public sector transfers.

Another interesting observation comes from combining the data on foreign investment from Table 2 with the investment subsidies paid by the federal government to firms investing in East Germany during the 1990s, reported in Table 12 below. Combining the two series yields a ratio of investment financed by external funds to GDP of 23.8 percent in 1991, 25.7 percent in 1992, 25.2 percent in 1993, and 25.2 percent in 1994. Subtracting this from the ratio of investments to GDP in Table 2 yields an internal investment rate of East Germany of 25.0 percent, 23.2 percent, 22.2 percent, and 22.9 percent for the same years. Except in 1991, this rate is not much different from West Germany's rate of investment which hovered around 20 percent in these years. Again, the data suggest that the very large investment rate is due to expansion of the budget constraint rather than a significantly different pattern of economic choices in East Germany compared to West Germany. This suggests that, without the public transfers, East German investment would have been lower by the amount of direct investment subsidies.

The observation of similar investment and consumption propensities is puzzling in view of the fact that due to the scarcity of modern capital equipment in East Germany, the real rate of return on capital should have been high and induced East Germans to save and invest more out of their incomes. The solution is in the discrepancy between wage cost and productivity in East Germany. The conversion of East German wages into DM wages at a rate of 1:1 implied that wages initially were much higher relative to productivity than in West Germany.

Figure 1: Wages and Productivity in East and West Germany, 1991-1997



Note: Deutsche Bundesbank. Wages indicate the collective bargaining agreements computed as real hourly earnings; productivity is the GDP produced by a worker per hour

Figure 1 illustrates the subsequent wage and productivity movements. Between 1990 and 1991, East German wages rose by 18%, followed by 32% in 1992 and 19% in 1993. Later on, the wage hikes became more moderate and from 1995 onward real wage growth actually fell below labor productivity gains. Productivity increased during the process, but far less than wages during the initial phase. Productivity gains peaked at 10 percent in 1993 and have been around 6 percent since then. Unit labor cost in East Germany started out at 150 percent of West German levels in the early 1990s. A strong improvement in the first years of the 1990s came to a halt after 1993. Currently, unit labor cost stands at 130 percent of the West German level. Thus, at the end of the 1990s, East Germany's economy suffers from a severe and persistent disadvantage in competitiveness relative to the West.

The Kohl government's justification for the initial conversion rate for East German wages and its subsequent support for rapid nominal wage equalization was that East German labor, even if prices highly, would soon attract capital and modern technology due to the high level of training of East German workers, and that this would fill the productivity gap. Obviously, this „wage-pull" argument, though it bought the government popularity with the labor unions, makes no economic sense as, as it disregards the importance of the rate of return on capital for capital investments. The data suggest that the government's policies failed to mobilize internal savings and investment in East Germany. Put simply, the return on capital was too low given the excessive wage cost.

To spur investment nevertheless, the Kohl government paid massive investment subsidies of various forms; see Table 3. Sinn (1995) estimates that, as a result, the cost of capital became negative for industrial investments and the renovation of buildings and very low, though positive, for other types of investments. But as much of this support was based on saving taxes, it could only be attained by firms that were mature enough to earn sufficient profits already. East German businesses were, therefore, less able to enjoy such benefits than West German businesses (DIW et al., 1995). Sinn (1995) argues that, therefore, these subsidies favored the acquisition of East German firms by West German businesses, without necessarily leading to the building of new production facilities. They seem to have done little to stimulate investment by East German companies in East Germany.

Table 3: Investment Support Programs (Billions of DM)

	1991	1992	1993	1994	1995	1996	1997	1998
Tax allowances	1.04	4.19	4.89	4.44	3.62	2.41	1.74	1.32
Depreciation allowances	3.40	4.90	6.30	7.10	9.10	9.50	6.82	7.00
Investment Subsidies	7.52	6.38	6.98	6.70	5.08	6.27	4.48	2.37
ERP Loans	8.15	6.12	6.02	4.10	3.58	3.58	3.17	1.52
KfW Loans	5.92	6.34	3.79	2.05	2.14	2.14	1.91	0.72
DtA Loans	3.52	3.88	3.19	3.16	2.47	2.47	2.07	0.83

Note: 1998: first 6 months. Sources: ERP (European Reconstruction Program); KfW (Kreditanstalt für Wiederaufbau) DtA (Deutsche Ausgleichsbank)

Table 4 reports the sectoral distribution of investment during the 1990s. In the early years of transition, manufacturing attracted the largest part of investment, followed by trade and transportation. This is consistent with the need to rebuild the productive capital stock of the East German economy, which was largely worn out at the end of the 1980s (von Hagen, 1997; DIW, 1999). Over time, however, residential housing became the main attractor of new capital, a result of tax incentives which the federal government set in favor of residential housing. At the same time, investment in the service sector excluding residential housing increased its share in total investment significantly.

Table 4 Distribution of Investment

	Manufacturing	Trade, transportation	Services w/o residential housing	Residential housing	Government
1991	32.3	22.0	10.3	17.1	17.0
1992	31.1	21.1	9.7	18.1	18.9
1993	27.8	19.5	14.1	20.2	17.7
1994	23.8	18.0	16.1	24.2	17.4
1995	22.6	15.7	18.0	27.7	15.8
1996	21.2	15.7	17.5	29.5	15.5
1997	21.0	16.3	16.3	30.5	15.2
1998	21.4	16.2	16.4	29.4	15.9

Note: All entries in percent of total annual investment. Source: Council of Economic Advisors, various issues

Between 1991 and 1998, an estimated DM 1300 mill. have been invested in new capital equipment and structures in East Germany (DIW et al., 1999). The capital stock, which initially was reduced significantly by the dismantling of old production sites, has grown at an annual rate of seven percent, compared to 2.5 percent in West Germany. As a result, the average age of capital equipment had fallen by 1994 to 25.3 years, compared to 32.6 years in 1991 and 21.3 years in West Germany.

Due to the monetary union with West Germany, inflation never was a problem of East Germany's transition phase.[3] Under the strict price-stability orientation of the German Bundesbank, the relative price adjustments required by the deregulation of the East German markets were never allowed to feed into general inflation, and the conversion of monetary assets from East German Mark to Deutsche Mark succeeded in avoiding an inflationary monetary overhang. Table 5 shows that consumer prices still rose considerably faster in East than in West Germany in the early 1990s, peaking at 12.1 percent in 1992. The strongest price increases were for housing (the rental price of apartments increased by 369 percent between 1991 and 1997), health care and cosmetics (53 percent) and energy (35 percent), the smallest price increases occurred for textiles (3 percent) and furniture and household goods (5.8 percent). In the late 1990s, the rate of price increase in East Germany has come down to the West German level.

After an initial drop of about 30 percent, producer prices remained flat throughout the 1990s, moving pretty much in line with West German producer prices; see Table 5. The close co-movement indicates the high degree of market integration between the two parts of

[3] For a review of the monetary union and its macroeconomic effects see von Hagen (1993).

Germany, which did not leave much room for deviations of producer prices in East Germany from those in West Germany. The largest price increase in this category falls on electricity, gas, and water supply, with a total increase of 17.8 percent between 1991 and 1997.

Unemployment in East Germany started off at 4.7 percent in the second half of 1990, to increase quickly to an average of 10.7 percent in 1991. After three years of stagnant unemployment rates above 14 percent, it came down slightly to 13.5 percent in 1995, but returned to even higher levels in the late 1990s. Note, however, that West Germany saw a rising unemployment rate at the same time.

Table 5: Inflation and Unemployment, 1991-1997

	PPI Inflation (percent p.a.)		CPI Inflation (percent p.a.)		Unemployment (percent)	
	East	West	East	West	East	West
1991	n.a.	2.5	78.0	105.8	10.7	5.5
1992	2.3	1.4	78.6	105.3	14.8	5.8
1993	1.9	0.0	83.3	97.2	14.9	7.3
1994	1.3	0.6	95.4	100	14.6	8.3
1995	1.4	1.7	100	100	13.5	8.4
1996	1.4	-0.1	101.1	99.4	15.0	9.1
1997	1.8	1.1	103.6	102	17.5	9.9

Source: Council of Economic Advisors, various issues

III. Economic Restructuring

The 1990s witnessed a strong structural adjustments of the East German economy. Table 6 shows that the agricultural sector, which was still relatively large in 1991, declined by 1.6 percentage points and is now approaching the West German share of a mere 1.1 percent of GDP. The share of manufacturing fell from 36.1 percent to 34.6 percent, remaining slightly higher than in West Germany. While trade and transportation started of and remains at a similar position in East and West Germany, the service sector in East Germany almost 10 percentage points, but remains 8 percent below the share of services in West Germany. The government sector declined by 4.7 percentage points, but remains 6.6 percent higher than in West Germany.

A closer look reveals a dramatic process of de-industrialization in East Germany. The industrial sector shrank by almost two percent of GDP since 1991; non-construction manufacturing by over 4.5 percent. Its share is now below 20 percent of GDP, much lower than that of industry in West Germany. The large and growing share of construction also reflects the East German construction boom of the 1990s. Compared to West Germany, the size of this sector seems hardly sustainable, signaling a further need for restructuring.

Table 6: Sectoral Structure of Production

	East Germany, 1991	East Germany, 1997	West Germany, 1997
Agriculture, Forestry	3.3	1.7	1.1
Manufacturing	36.1	34.2	32.6
Of which: construction	11.8	14.5	4.6
Energy, water, mining	7.7	4.1	2.2
Industry	16.7	15.1	25.7
Trade, transportation	14.6	13.2	14.8
Services	21.4	30.8	38.2
Government	24.6	19.9	13.3

Note: All entries are percent of total output. Source: Federal Statistical Office

Overall, the table indicates a strong shift of East German production from industry to services. To some extent, this is due the fact that, under the old socialist regime, many services that are typically offered by specialized institutions in market economies and, therefore, are counted as part of the service sector, were offered by the state-owned industrial companies and, implicitly, counted as industrial output. A typical example are social services offered by East German firms. Groebel (1996) estimates that this difference between the institutional division of labor in the economy results in an overestimation of the share of the manufacturing sector in East Germany by 17 percent, and an underestimation of the service sector by 25 percent relative to official statistics.[4]

More generally, however, the move from a manufacturing-based to a service-based economy is a common sign of a modernizing society. In this regard, West Germany has lagged significantly behind her West European partners in the past 25 years. Assuming that some of the productive activity at least that is currently in the construction sector in East Germany will move into services over time, the table predicts that East Germany will lead West Germany on the way to a more modern, service-oriented economy in the longer run.

Table 7 indicates that the restructuring process has been accompanied by strong changes in productivity. Overall, productivity in the East caught up from a third to half of the West German level. The relative gains were strong in the early 1990s, but slowed down in the late 1990s, but as West Germany realized significant productivity gains, too, after 1994; East German productivity increased in parallel. The strongest productivity gains were realized in the manufacturing sector, while relative productivity in the service sector remains low in East Germany. Combining tables 5-7 suggests that productivity gains in the early 1990s were predominantly realized through the shedding of labor, and only later through the improvement of the capital stock (see Dietrich et al., 1998).

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[4] Groebel works with data from the East German statistical office based on pre-unification prices and accounting rules. Her sectoral shares are, therefore, not comparable with the shares calculated by th.e West German

Table 7: Productivity Trends in East and West Germany

	Total economy		Manufacturing		Trade, Banking		Services	
	West	East	West	East	West	East	West	East
1991	100	32.6	100	28.8	100	35.1	100	33.8
1992	100.8	39.9	99.3	41.4	99.9	41.2	100.1	37.0
1993	100.6	44.5	96.9	50.1	99.4	47.6	100.9	36.6
1994	103.8	46.3	102.4	53.9	101.7	50.2	101.3	36.0
1995	105.7	46.9	104.2	54.8	104.3	51.3	101.7	36.1
1996	108.4	48.3	105.8	58.8	106.9	52.1	104.2	36.6
1997	112.4	49.1	111.6	60.3	110.9	51.8	106.2	37.1

Note: West: 1991=100. East: Current productivity in percent of productivity in the West. Source: Council of Economic Advisors, various issues

Hidden behind these aggregate figures for the industrial sector are some very strong relative changes in production across industries; see table 8. Mining and quarries, leather production and processing, energy and water supply, and machinery are the losing industries of the 1990s. In contrast, production in the wood processing industry, rubber and plastics, metal goods, glass and ceramics, and office machinery and optics are the expanding industries of the 1990s. This restructuring of East German industry came together with similarly strong shifts in employment and in labor productivity (von Hagen, 1997).

Table 8: Relative Change in Industrial Output, 1991-97

	Total industry	Mining, quarries	Manufacturing	Food, tobacco	Textiles and clothing	Leather	Wood processing	Paper and printing
Output 1)	32.8	-63.7	58.9	97.9	8.4	-54.7	248.3	112.0
Productivity 2)	61.3	95.3		71.9	57.5	66.5	68.2	93.9
Mineral oils etc.	Chemicals	Rubber, plastics	Glass, ceramics	Metal, metal goods	Machinery	Office machinery, optics	Furniture, musical instruments	Energy, water
29.0	10.0	221.6	143.8	156.2	-26.0	99.9	80.6	-11.5
26.4	36.1	71.1	73.6	66.5	51.7	69.3	58.3	.

Note: 1) Relative change, 1991-97; 2) East Germany in relation to West Germany (percent) 1996. Source: Federal Statistical Office

Reviewing these structural changes in the industrial sector, Ragnitz et al. (1998) and Dietrich et al. (1998) note a number of tendencies. First, the relatively fast-growing industries tend to be those that are intensive in transportation cost and produce primarily for the regional markets rather than the German and international markets. This is consistent with the observation that East Germany today reaches a ratio of exports to GDP of less than 10 percent. Industries which are less protected by transportation costs apparently find it too hard to compete due to the combination of low productivity and high wages.

Second, the relatively fast-growing industries today are those that, according to West German experience tend to have a limited growth potential only in the longer run, and those

statistical office today. Nevertheless, her results indicate the importance of the effect which prevails in the new statistical data.

that have a relatively low intensity in high-skilled labor. A continuation of this trend would imply a slowdown of East German growth in the long run, with limited chances only to catch up with West Germany in terms of per-capita output and labor productivity. Taking these trends together signals a risk that East Germany develop a lasting dependency on income transfers from West Germany, if comparable standards of living are to be maintained.

IV. Labor Market Adjustment

In 1989, the East German economy had 9.56 million employees, this number fell to 7.59 million in 1991; see table 9. By 1997, the number of jobs had further decreased to 6.43 million. Thus, the economy lost about one third of its jobs during the 1990s. Note that the process of job destruction in the 1990s was parallel in East and West Germany, though less pronounced there.

Table 9: Employment

	Employment (1000 jobs)	
	East	West
1991	7590	28973
1992	6725	29135
1993	6544	28677
1994	6656	28316
1995	6736	28081
1996	6603	27769
1997	6425	27848

Source: Council of Economic Advisors, Various issues

The decisive factor in East Germany's labor market crisis was the immediate and full extension of West Germany's labor market institutions to East Germany, including an unemployment insurance characterized by generous unemployment benefits. Until 1994, the replacement rate in the German unemployment insurance was 68 percent for an unemployed individual with at least one child, and 63 percent for unemployed without children. These rates were lowered to 67 percent and 60 percent, respectively, in the Consolidation Act of 1993. The duration of benefits varies from one year for individuals under the age of 45 to 32 months for individuals above the age of 57. Upon expiration, they are replaced by unemployment aid, which has no maximum duration for individuals below age 65. In 1994, replacement rates under unemployment aid were lowered from 58 percent to 56 percent for individuals with at least one child and from 57 percent to 53 percent for unemployed without children (BMA, 1998; Steffen, 1995).

The rules of unemployment insurance to East Germany defined the rules of wages bargaining in East Germany. They allowed West German employers and labor unions to fend off the competition of low-wage workers from East Germany. While unions feared that competition for the pressure it might exert on the high wage level in West Germany, employers were equally dismayed with the prospect of low-wage competitors from the new parts of the country. Their collusion was facilitated by the fact that wage negotiations in East Germany were soon taken over by West German unions. Western union leaders presented themselves as acting on behalf of the East German workers, as East German unions had fallen into political disrespect for their association with the communist regime. To eliminate wage competition from East Germany, employers associations and unions in 1991 agreed on a stepwise adjustment of East German wages to Western levels. Several industries - most importantly the steel industry - envisaged to have the same wage levels in East and West Germany by 1994 (SVR, 1992:107-110). Moreover, unions striving for a very rapid adjustment of wages signed contracts only for less than a year to facilitate re-negotiations and a quick upward move of wages.

The result of this could only be to price East German labor out of the market. But high wages levels secured high unemployment benefits, which left the unemployed better off staying in the East than moving to the West to find employment. Massive unemployment in East Germany was the result (Sinn, 1995; von Hagen, 1997).[5] Instead of creating jobs in the East, the adjustment process triggered huge social transfers from West Germany. Elsewhere, we explain that the Kohl government, which was trailing far behind in the polls running up to the election in 1990, allowed this to happen in the hope to improve its reelection chances (von Hagen and Strauch, 1999).

The federal government responded to the rise in unemployment with an unprecedented level of labor market interventions. Table 10 reports the number of participants in different labor market schemes and the unemployment rate for East Germany. Between two and five percent of the German labor force participated in public works programs from 1991 to 1997; a similar number of employees were enrolled in training programs. This number fell to 171.000 in 1997 after a peak of 428.000 in 1992. Early retirement and provisional retirement schemes were a third kind of labor market policy. At the peak, some eleven percent of the total labor force benefited from these schemes. An even larger number of individuals were included programs supporting part-time work during the initial stage of the transition process (BMA, 1998). In 1991, 19.6 percent of the labor force received such transfers, but the number of recipients was during the subsequent years. The combined full-time work equivalent of these measures amounted to almost 20 percent of the labor force in 1991 and approximately 11 percent in more recent years. Taken together, they created what became known as a "secondary labor market" in Germany.

[5] Theoretical models emphasize the role of unemployment benefits for the level of structural unemployment (e.g. Driffill & Miller, 1998). Empirical findings strongly confirm that high replacement rates in combination with their "long-term" duration causes high levels of structural unemployment, above all if no effective active labor market policies are in place bringing people back to work (see Nickell 1997, Siebert 1997).

Empirical evidence on the effectiveness of these measures in terms of a reintegration of participants in the labor market is rather disappointing.[6] Only on-the-job-training or training demanded by enterprises seem to have a positive effect on the individual's chances to find employment. In particular, the programs have failed to re-integrate the long-term unemployed into the labor market (Bertold and Fehn, 1997). Thus, they were unable to overcome the structural weaknesses of Germany's highly administered labor market.[7]

Table 10: Labor Market Policies in East Germany, 1991-1997

	1991	1992	1993	1994	1995	1996	1997
Employees in part-time work	1616	370	181	97	71	71	50
Employees in job-creation schemes	183	388	260	281	312	278	235
Employees in training schemes	169	428	351	248	250	238	171
Employees in early retirement- or transitional old-aged schemes	554	811	853	650	374	186	58
Employed persons	7321	6387	6219	6330	6396	6259	6053
Unemployed persons	913	1170	1149	1142	1047	1169	1363
Unemployment rate	11.1	14.4	15.1	15.2	14	15.7	18.1

Source: Deutsche Bundesbank (1998), Autorengemeinschaft (1998). Figures in 1000 or in percent.

Table 11 considers the labor market participation rates of different groups of the East German population. Participation of East German males started at almost 60 percent in 1991. It has declined somewhat and approached the West German rate since. Female participation, which was traditionally higher in East Germany than in West Germany, remains so in 1998. An interesting observation from this table is that the differences in employment rates between East and West Germany are much more limited than the differences in unemployment rates from Table 5 would suggest. This similarity of employment rates in the two parts of the country suggests that labor supply choices in East Germany are becoming much alike West German ones. In this sense, we observe convergence of the two labor markets. However, convergence does not imply integration, which would suggest a narrowing of regional unemployment rate differentials. In 1998, West German unemployment rates varied between 8.7 percent and 13.6 percent among the non-city states, East German unemployment rates varied between 18.4 percent and 21.7 percent. These large differences between the two parts of the country suggest that the

[6] A literature overview and additional evidence is provided in Hübler (1997) and Berthold & Fehn (1997).

[8] Most alternative proposals suggested to let the market determine wages and pay transfers to employees that could not support themselves or their families at the market wage rate, instead of tying transfers to unemployment. This would have helped to overcome the inherited labor market distortions and keep unemployment low in the first place. (see Akerlof et al., 1991, Sinn & Sinn, 1991)

unemployment insurance and welfare systems create sufficiently strong incentives against moving to prevent the equalization of unemployment rates expected in an integrated market.

If we accept the hypothesis of similar employment choices in East and West Germany, Table 11 suggests that the difference in unemployment rates reflects largely differences in the response to institutional incentives to register unemployed. Specifically, East German individuals who effectively chose to leave the labor market decided remain registered unemployed to receive unemployment benefits. Assume that, instead, East Germany had started from participation rates similar to those West Germany in 1998. Under this assumption, the same observed employment rate in East Germany in 1998 would have implied a registered rate of unemployment of 16.2 percent instead of 17.2 percent for all males in 1998, but only 7.4 percent instead of 23.2 percent for all females. These estimates imply a reduction of the number of registered unemployed males by 90,000 and unemployed females by 657,000, or a total of 747,000 individuals, over 50 percent of the 1.4 million registered unemployed in East Germany.[8] The resulting unemployment rate would then be similar to West Germany's rate. Admittedly, this is a rather mechanistic calculation, but one that illustrates the large consequences of the adverse incentive effects of Germany's labor market institutions and the low quality of unemployment rates as welfare indicators for East Germany.

Table 11: Labor Market Participation

	Participation Rate			Employment Rate	
	East, 1991	East 1998	West 1998	East 1998	West 1998
All male	59.9	58.2	57.0	48.2	52.1
All female	50.0	48.6	39.7	37.3	36.3
Female, unmarried	27.6	34.4	33.5	28.1	30.9
Female, married	73.0	67.1	49.4	51.4	45.4
Female widowed, divorced	30.7	29.3	25.6	20.0	22.3

Note: Participation rate: self-employed, employed and unemployed persons as percent of total working-age population (in that group). Employment rate: self-employed persons and employees in percent of total working-age population (in that group). Source: Federal Statistical Office

Eventually, a wage policy conducted largely according to the economic interests of West German unions and employers associations could not remain without an institutional response. The response has been an increasing erosion of the traditional German wage setting institutions in East Germany. Traditionally, wages are negotiated between unions and representatives of the employers association, with settlements binding for all employers who are members of the association. Thus, a firm can only withdraw from the settlement if it leaves the association. Recent data (DIW et al., 1999) shows that

[8] See Schneider (1998) for a similar calculation. Schneider starts from the observation that the average employment rate in East Germany was only marginally lower than in West Germany in 1998, namely 59.7 percent compared to 60.8 percent.

currently only 15 percent of all firms are members of an association and intend to remain members, down from 26 percent in 1993; 79 percent are not members, up from 64. Only 36 percent of all employees in East Germany are working in such firms, down from 62 percent in 1993. 55 percent of the employed today work for firms that are not members of an employers association, up from 24 percent in 1993. 67 percent of all employees still receive wages under union contracts, down from 83 percent in 1993. An important long term consequence of the labor market adjustments may thus be that East German wage setting arrangements will gain more flexibility than those in West Germany.

V. Public Finance Aspects

As noticed in the previous sections of the paper, government spending programs were the backbone of several macroeconomic developments and distortions in East Germany. The following part will describe how the New Länder were integrated into the Western fiscal system and analyze the fiscal magnitude and implications of massive state intervention. Then we will turn to the more specific aspect of local public finances because the peculiarities and problems of institution-building and fiscal integration can be illustrated particularly well in this area. Despite clear convergence towards West German patterns, marked difference continue to exist in the fiscal position of Eastern local governments.

V.1. West-East Transfers

German unification implied the extension of West Germany's social security and assistance institutions to East Germany and inclusion of East Germany into the federal grant system. German fiscal federalism establishes a system of horizontal and vertical resource flows between different layers of government, complemented by centralized pensions and unemployment insurance administered by independent federal agencies.

All German states participate in the horizontal equalization system, which aims at reducing differences in their tax revenues. Due to the weakness of their tax bases, the immediate integration of the new states into this system would have turned all West German states into net contributors. As the West German states resisted this, the East German states were initially excluded from equalization and supplementary federal grants paid under this scheme. The Federal Government shouldered the bulk of the responsibility by transferring large funds to the new states. The German Unity Fund, originally devised to cover the deficits of the GDR government during the interim period until unification, soon became the main financial arrangement (Schwinn, 1997:51-54, Rensch 1996). Beyond their contributions to this fund the Western states paid only small transfers to the East.

The 1993 Consolidation Program dissolved the German Unity Fund and integrated the new states into the equalization system from 1995 on. To facilitate this step, the federal government ceded seven percent of its VAT share to the states and agreed to cover most of the revenue shortfalls remaining for the East German states after the transfers within the horizontal equalization scheme. Additional federal grants were installed to compensate for the fiscal burdens caused by the socialist regime, for governments with less than proportional tax power and for states with a low population density suffering from diseconomies of scale in public administration. In addition, a financial package was approved providing grants for the new states to support economic growth and investment.

Table 12 reports the transfer flows paid to East Germany by the various parts of German government. Total gross transfers rose from DM 139 billions in 1991 to DM 189 billions in 1997. The federal government's share in these transfer flows increased over time. The table also reports the functional distribution of these transfers. The largest share are transfers to private households. Social security payments rose from 56 billion to 84 billion between 1991 and 1996, between 40 and 46 percent of total gross transfers. A large part of these expenditures were payments from the federal government, which were channeled through the social security system to overcome its financing shortages in the East (see Table 13). Moreover, the federal government directly paid for social security benefits under early retirement schemes and unemployment support. Current subsidies to East German enterprises are the third largest transfer category amounting to 8 billion in 1991 and 16 billion in 1997.[9] Importantly, transfers to finance public investment amount to much less than transfer payments to individuals. This is a clear refutation of the tax-smoothing interpretation of German fiscal policy after unification.

Table 12: Public Gross Transfers to East Germany, 1991-1998 (in Bill. DM)

	1991	1992	1993	1994	1995	1996	1997	1998 *
Federal Budget	75	88	114	114	135	138	131	139
"German Unity" Fund	31	24	15	5	-	-	-	-
EU	4	5	5	6	7	7	7	7
Pension Fund	-	5	9	12	17	19	18	18
Labor Office (BfA)	25	38	38	28	23	26	26	28
Länder and local governments in West-Germany	5	5	10	14	10	11	11	11
Total	**139**	**151**	**167**	**169**	**185**	**187**	**183**	**189**
of which (percent)								
Social Security Benefits	40.3	45.0	46.1	43.7	42.7	44.9	44.2	44.4
Subsidies to firms	5.8	6.6	6.6	10.0	9.7	8.0	7.7	8.5
Investment	15.8	15.2	15.6	15.4	18.3	17.6	17.5	17.5
Cash transfers (not classifiable)	38.1	33.1	31.7	30.8	29.2	29.4	30.6	29.6

9 According to Table 14, between 50 billion and 56 billion DM per year cannot be ascribed to any of these transfer categories, they include wage compensation for public employees and other transfers.

Note: (*) indicates preliminary figures as planned in the budget. Source: Deutsche Bundesbank (1997), BMF (1998)

Federal support to the social insurance system would have been even larger without the transfers from within the system to East Germany. In 1990, East Germans contributed 50 percent of the unemployment insurance benefits paid in East Germany. This share fell to 7.2 percent in 1993. Similarly, the ratio of pension contributions to expenses fell from around 81 percent in 1991 to 56 percent in 1997 in East Germany (Table 14), a result of rising unemployment, rising early retirement benefits and rising wage levels. Thus, although social security and unemployment insurance have no explicit geographical dimension, these schemes became channels of massive regional income distribution (Czada, 1995).

Table 13: Financial Transfers of the Federal Government (Billion DM), 1991-1997

Transfers to East German	1991	1992	1993	1994	1995	1996	1997
Private households	27.2	32.9	52.6	44.6	44.5	46.3	-
- unemployment aid	0.3	1.5	3.5	4.9	5.7	6.8	-
- early retirement	5.7	5.1	5.0	7.2	8.2	5.6	2.1*
- unemployment ins.	5.9	8.9	24.4	10.2	6.9	13.8	9.6
- pension system	7.7	8.7	10.7	13.5	15.1	16.2	17.4**
- others	7.6	8.7	9.0	8.8	8.6	3.9	-
Firms	19.7	22.9	20.2	25.3	25.0	21.6	-
States and communities	9.5	6.6	7.6	7.3	32.6	32.3	-

Note: (*)This is a preliminary figure as planned in the budget. (**) The figure includes a preliminary part as planned in the budget. Source: Boss (1998), BMF (1998).

Table 14: Ratio of Contributions to Expenditures for Unemployment Insurance and Pension Fund

	Unemployment Insurance		Pension Fund	
	West	East	West	East
1990	92.6	50.4	86.0	-
1991	148.7	15.2	85.0	80.9
1992	154.4	7.2	83.4	69.4
1993	129.4	7.1	78.9	65.4
1994	133.6	9.0	81.0	62.2
1995	131.1	11.1	80.7	57.8
1996	120.5	10.2	81.8	55.6
1997	127.5	9.5	84.0	56.0

Source: Deutsche Bundesbank

Meanwhile, the governments of the new states continuously spent in excess of their tax revenues (Seitz & Peters, 1999). Although their indebtedness was small at the time of unification, the level of state debt reached DM 96.3 billion at the end of 1998, while East German municipalities had incurred DM 30 billion debt at that time. The combined debt thus corresponded to about one third of GDP. In per-capita terms, East German states and municipalities had incurred debt totaling DM 8940 per capita debt, slightly more than the DM 8900 of West German states and municipalities.

V.2.. Municipal Government in East Germany

Under the socialist regime, East Germany had lost its traditional federal structure consisting of a central government, state governments and local governments (villages and counties). The states were abolished as administrative and political units in 1952 (Stamm, 1990) and replaced by 14 district administrations (and East-Berlin). Local administrations deteriorated to purely administrative bodies.

With the transplantation of the "ready-made state" from West to East Germany (Rose et al., 1993), district governments were abolished and the traditional structure was reinstalled. Municipalities were granted autonomy in local matters in May 1990. Before unification, the management of local state enterprises had been an important activity for city governments. As this task became obsolete, these governments assumed a number of new tasks such as social, cultural and sports activities, and the management of hospitals and public schools. New administrative fields such as social assistance, the registration of citizens, property and environmental protection were ascribed to municipalities and county governments (see Wollmann, 1996:117-118, 1997: 269-271).

Local governments were generally ill-equipped to fulfill these tasks, as core administrations were heavily understaffed. Counties were in a better position at the beginning, but lost parts of their staff, particularly in tax administration, either to state governments or the private sector. At the same time, the transfer of tasks and personnel formerly belonging to subordinated agencies or state owned enterprises created a large overhang of personnel in areas such as social affairs, sports etc.[10] These facts are illustrated in Table 15. In contrast, financial administration, construction and housing, and local industrial development were understaffed in East Germany compared to West German states. In subsequent years personnel in schooling and health was drastically reduced, but remained relatively large in the social area.

[10] Government employment could rise drastically due to this reshuffling of institutions. For example, in some cities which had formerly an administrative staff of 250 to 300 employees, the staff number rose to 4000 or 5000, or even 10000 in Erfurt, between 1990 and 1991 (Wollmann, 1996:128).

Table 15: Local Government Staff (per 1000 inhabitants)

	New Länder (incl. East Berlin)		Old Länder
Year	1991	1996	1991
General Administration	3.91	4.07	3.08
Financial Administration	0.61	1.05	0.69
Public Security Service	1.15	1.65	1.29
Schools	4.18	2.27	1.93
Science, Research and Culture	1.47	1.48	0.96
Social Security	10.96	6.02	2.71
Aid for Young People	8.91	4.53	1.18
Health, Sports and Recreation	8.20	2.02	1.32
Hospitals	5.15	0.00	0.02
Construction and Housing	1.73	2.05	2.12
Public Facilities and Industrial Services (Wirtschaftsförderung)	1.50	2.00	1.71
Public Enterprises	0.16	0.06	1.17

Source: Federal Statistical Office (1991, 1996a, b)

The small size of many communities was another liability of the former system. Pre-unification East Germany was divided into 7640 communities, of which 87 Percent had less than 2000 inhabitants and 47 percent less than 500 inhabitants; only seven percent had more than 5000 inhabitants. (Bizer & Scholl, 1998:41). In contrast, the minimal size of a viable community was estimated at 5000 inhabitants in West Germany. Similarly, the average county population of in the new states was 60,000 inhabitants, against 150,000 in West Germany (Wollmann, 1997: 289.) Undersized communities promoted parochialism[11], planning uncertainty, and short-sighted action. The new East German states undertook local government reforms during the first electoral term, which became effective with the start of the second electoral term between in December 1993 and December 1994.

V.3. Municipal Finances

Table 16 shows the evolution of municipal revenues from 1991 to 1998. After a sharp rise between 1991 and 1992 due to higher tax rates, revenues increased until 1995. Since 1995, revenues have deteriorated as federal and state grants to the operating budgets decreased.

[11] For example, coordination problems among small communities induced the excessive construction of water-clearing facilities and industrial areas, because each community wanted to create its own facility irrespective of the actual demand and the efficiency of the measures. (see Bizer & Scholl, 1998: 44 and the literature quoted here).

The unification treaty ruled that local governments receive at least 40 percent of the grants from the German Unity Fund and 20 percent of state tax revenues. Municipalities became eligible for grants financing "joint policies" (Gemeinschaftsaufgaben) such as higher education, regional development and coastal protection, and could draw from a range of special programs financed by various federal ministries.[12] Under the 1993 Consolidation Program, municipal debts for public housing inherited from the past were assumed by the federal Debt Processing Fund (Bohley, 1995:213).

Table 16: Real Revenues and Expenditures of East German Local Governments (in Bill DM) - Operating Budget

	1991	1992	1993	1994	1995	1996	1997	1998
Taxes	2.51	4.31	5.40	6.73	7.52	6.23	6.68	7.57
Profit Tax (net)	0.50	0.71	1.15	1.99	1.70	1.97	2.59	2.78
Profit Tax (gross)	0.51	0.71	1.24	2.24	1.91	2.20	2.61	2.83
Local Share of VAT	.	.	.	.	.	.	.	0.69
Local Share of Inc. Tax	1.12	2.57	3.06	3.43	4.31	2.54	2.24	2.12
Grants of Fed. Gov. And Länder	26.69	23.22	23.93	23.94	25.33	22.90	21.27	20.44
Transfers to families Familienlastenausgleich	.	.	.	.	.	0.57	0.32	0.21
Charges	3.25	4.70	5.10	5.00	5.28	4.95	4.51	4.28
Other Revenues	6.00	9.08	8.70	8.22	8.25	7.75	6.17	5.72
Total Operating Revenues	**38.45**	**41.32**	**43.14**	**43.89**	**46.38**	**42.40**	**38.97**	**38.23**
Wage Payments	17.39	21.32	20.13	18.23	17.97	16.76	15.45	14.91
Purchases	10.72	11.64	11.05	10.83	10.69	10.16	9.63	9.40
Social Transfers	2.20	4.33	5.96	7.60	8.70	7.86	6.38	6.27
Interest Payments	0.23	0.60	1.03	1.28	1.53	1.70	1.70	1.71
Payments to Public Sector	0.85	0.78	0.92	0.91	0.68	0.97	1.00	0.68
Other Expenditures	3.20	2.10	2.31	2.50	2.97	3.01	3.06	3.31
Total Operating Expenditures	**34.59**	**40.78**	**41.40**	**41.35**	**42.54**	**40.45**	**37.21**	**36.28**

Note: All nominal data are from Der Städtetag (April 1999). They are deflated by the price index for government consumption of the Deutsche Bundesbank (1995=100). Figures for 1991, 1997 and 1998 are estimates.

As indicated in Table 16, municipal governments continuously ran operating surpluses during the 1990s. Initially, large wage payments due to the excess staff inherited from the Socialist regime were an important resource drain for the local authorities, making

[12] An overview is provided in Bizer and Scholl (1998:71-72). Saxonia had abour 120 different funding programs on which local governments could draw to finance capital expenditures. (Schneider, 1993: 23). Apart from grants, special arrangements were made with regard to the calculation of taxes shared among different layers of government. For example, local communities received their share of income tax revenues according to the number of inhabitants instead of the local income until 1996 due to the reliable data. (see Rensch, 1997 for his and other special arrangements).

up over 50 percent of the operating budget. The large wage hikes in the private and public sector aggravated the problem during the first years after unification. Although local authorities were successful in reducing staff numbers, the problem was slow to go away, because, in contrast to state governments, local authorities could not dissolve entire organizations, but had to remove all staff members individually. This often provoked law suites which prolonged the process. (Karrenberg & Münstermann, 1999:212) As a result wage payments declined steadily between 1992 and 1998, but continue to command over 40 percent of the operating budget. In contrast, social transfers increased fourfold from 1991 to 1995 and declined only afterwards.

As indicated by Table 17, capital budget revenues remained fairly stable after a initial rise between 1991 and 1993.

Table 17: Real Revenues and Expenditures of East German Local Governments (in Bill DM, 1995=100) - Capital Budget

	1991	1992	1993	1994	1995	1996	1997	1998
Investment Grants of Federal Gov. And Länder	11.55	10.28	10.00	7.15	8.00	7.72	7.95	7.51
Privatization Proceeds (Veräußerungserlöse)	0.57	1.44	2.68	3.08	3.07	2.96	2.71	3.07
Contributions	0.05	0.24	0.40	0.52	0.62	0.56	0.59	0.57
Other Revenues	0.32	0.76	0.61	0.70	0.61	0.63	0.60	0.76
Total Capital Revenues	**10.84**	**12.72**	**13.68**	**11.45**	**12.30**	**11.87**	**11.84**	**11.91**
(Fixed) Investments	13.67	20.08	18.95	17.94	16.13	14.26	13.10	12.60
Construction	11.74	17.16	16.32	15.63	14.03	12.30	11.32	10.94
Purchase of Fixed Assets (Sachvermögen)	1.92	2.92	2.62	2.32	2.10	1.95	1.78	1.66
Other Expenditures	0.77	0.95	1.25	1.49	2.09	2.19	2.15	2.05
Total Capital Expenditures	**14.44**	**21.03**	**20.21**	**19.43**	**18.22**	**16.44**	**15.25**	**14.65**

Note: All nominal data are from Der Städtetag (April 1999). They are deflated by the price index for government consumption of the Deutsche Bundesbank (1995=100). Figures for 1991, 1997 and 1998 are estimates.

Aggregate capital expenditure rose sharply in 1991 and 1992, mainly for financing construction projects. Expenditures decreased from then onwards, reaching DM 14.7 billion in 1998. Municipalities continuously ran deficits on the capital budget, which peaked at DM 8.3 billion in 1992. The deficits of the initial years led to a strongly rising debt level, which in per capita terms converges to the level in Western states.

Tables 18 illustrates the structure of revenues and expenditures and compares it to West German municipal governments. The share of tax revenues increased steadily, but remains much smaller than in the West. After 1991, the overall contribution of transfers remained fairly stable, with a shift from investment to operating grants not depicted in the table. The total share of transfers from higher levels of government is still twice as large as in West Germany. On the expenditure side, the share of wage payments declined, while the importance of social transfers increased significantly in the local government budgets

Table 18: Structure of Local Government Budgets

Year	Revenues			Expenditures		
	Taxes	Charges & Contr.	Grants	Wage Payments	Social Transfers	Investment
			East German Local Governments			
1991	5.1	6.7	77.6	35.5	4.5	27.9
1992	7.0	8	54.2	34.5	7.0	32.5
1993	8.8	8.9	55.1	32.7	9.7	30.8
1994	11.1	9.1	51.1	30.0	12.5	29.5
1995	12.8	9.7	54.9	29.6	14.3	26.6
1996	10.9	9.7	53.8	29.5	13.8	25.1
1997	12.7	9.7	55.7	29.4	12.2	25.0
1998	14.9	9.5	54.9	28.3	12.3	24.7
			West German Local Governments			
1998	38.8	15.4	27.0	27.0	19.9	15.4

Note: All nominal data are from Der Städtetag (April 1999). The figures indicate the share of the revenue source as percentage of expenditures without special transactions (besondere Finanzierungsvorgänge). City states are excluded.

To explain the lower tax revenues of East German local governments, one must recognize that taxes are largely exogenous at the local level because the federal government together with the states determine the relevant legislation. The states set forth their own Statutes of Local Public Finances determining the share of revenues transferred to the local level and their functional distribution.[13] Local governments have discretionary authority over the rate of local profit and property taxes as well as service charges, the second most important source of own revenues. But, East German municipalities were not allowed to raise a capital levy on local enterprises (Gewerbekapitalsteuer) until 1995, and special measures were introduced to reduce the tax burden on profits (Bohley, 1993:199).[14] Moreover, states urged local governments to not raise the tax rate on property above a maximum rate during the initial years (Bizer & Scholl, 1998). Thus, the legal authority of Eastern local governments to raise taxes was even more constraint than in the West.

13 For details see Blizer & Scholl (1998) and the literature quoted there.

14 These constraints were somewhat outweighed because the local governments did not have to forward parts of the profit tax to the Länder government (Bohley, 1995:208).

In addition, limited administrative capacity at the local level contributed to the limited taxing power. Property taxation illustrates the point.[15] Property tax comes in two versions; type A applying to agricultural enterprises and type B to non-commercial real estate, houses and apartments. State tax administrations collect type A tax, while local tax administrations collect type B. This includes the entire process from generating property registers, assessing property values, to the computation of the tax liability and tax collection. Property tax data shows large differences in the per-capita collection of type-B tax revenues and their growth during the 1990s between West and East German municipalities. In contrast, type A collections in East and West Germany perform in a very similar way. Noting that state governments were able to build efficient administrations in much shorter time than local governments suggests that limited administrative capacity is behind the weak tax collections at the lower level. Furthermore, type-B tax collections are growing faster and reach higher levels per capita in large compared to small communities. If size is taken as a rough proxy for administrative capacity - large communities are more established links to outside experts and can draw attract tax personnel from a more diversified pool of employees – this observation suggests again that limited administrative capacity is at the root of the weak taxing power of East German local government.

Social transfers, like revenues, are largely removed from the discretion of local authorities (Seitz, 1999). Entitlement to social assistance is generally granted by federal law which specifies two types of assistance programs, subsistence aid and emergency aid. The first one is granted to families unable to maintain a socially or culturally defined minimum subsistence level. Each state government decides upon the minimum amount of aid given to recipients. In addition, subsistence aid includes supplementary payments for housing, cloths etc. which are not covered by the base payment. Emergency aid is granted to those affected by extraordinary hardships, e.g., handicapped people those or suddenly in need of special care. States determine the basic amount of social aid and how its financing is shared between the state and the local authorities. Local authorities often have to bear the lion's share of social aid expenditures. The total flow of resources under these programs is by and large determined by local living conditions and social infrastructure, age and gender structure of the population, employment and migration.

During the initial years after reunification subsistence aid expenditures increased from DM 1 billion in 1991 to DM 1.5 billion in 1993, and somewhat more afterwards.[16] The average expenditures per recipient were DM 1680 in 1993, 44 percent of the Western level. Moreover the risk of becoming a recipient was 1.6 percent on average, which is 0.9 percentage points lower than in the West. The reason for the relatively low level of per capita

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15 The following is based on Bizer and Scholl (1998: 184-188) if not indicated otherwise.

16 The following section is largely based on Deutsche Bundesbank (1996:42)

expenditures is the relatively high fluctuation of recipients and, among others, the low housing prices in East Germany. The low risk is primarily the result of the very high participation ratio inherited from the past and the labor market policies discussed above, which secured other sources of support for individuals who would otherwise have been eligible for subsistence aid.

In contrast, emergency aid spending more than doubled between 1991 and 1994. The number of recipients increased from 167 000 in 1991 to 255000 in 1993. The average expenditures per recipients were about 30 percent lower than in the West, which may be due to lower average wages. However, with the convergence of the East German health care sector to West German standards and costs, expenditures rose strongly. The increase in spending fell in particular on the contribution to health care, which account for half of the total aid, and the re-integration of the handicapped. The growth of social assistance spending was halted by the introduction of the Emergency Care Insurance in 1995-96. This new system covers a large part of the hardships formerly producing the eligibility to social aid. The new arrangement has helped East German local governments to avoid a further growth in expenditures.

V. Conclusions

Ten years after the fall of the Berlin Wall, East Germany's transition presents a mixed picture. On the one hand, economic choices in the private sector, such as consumption and saving, purchases of durables, and active employment look very much like those of West Germans. Similarly, local governments look much alike local governments in the West as regards the provision of public services. On the other hand, these similarities do not correspond to the persistent differences in the levels of output and incomes earned in East Germany, nor to the differences in local tax capacities. Investment has been strong in recent years, but it seems to have been largely dependent on financial incentives provided by the federal government, and investment choices often do not seem to promise the development of a modern industrial base with high labor productive.

Overall, the combination of an immediate adoption of West Germany's regulatory and transfer system with the receipt of huge public transfers primarily used to finance consumption has been much less of a blessing for East Germany than many optimistic observers hoped at the time of unification. The failure of the Kohl government to address in due time the incentive issues in the labor market and for stimulating investment has kept East Germany's economy from entering into a sustainable recovery. Today, the risk that East Germany will remain a transfer-dependent "mezzo-giorno" economy for the foreseeable future is significant. It will take considerable political effort to phase out industrial support programs and any reduction in the transfers to households will be even more difficult politically, since any reform they touch on the economic interests of West German households, too. There is, perhaps, some hope in the prospect of endogenous institutional change towards market deregulation in East Germany (von Hagen, 1997). The rapid decline in the coverage of union contracts in the East German labor market and the recent strive for more liberal shop closing hours might be a first indication of such a development.

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